

(19)



JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number: **09090355 A**

(43) Date of publication of application: **04.04.97**

(51) Int. Cl

G02F 1/1335

(21) Application number: **07242855**

(22) Date of filing: **21.09.95**

(71) Applicant: **FUJI PHOTO FILM CO LTD FUJI
PHOTO OPTICAL CO LTD**

(72) Inventor: **KATAKURA KAZUHIKO
TAWARA SHUJI
OGASAWARA MAMORU
NARITA TOSHIHIKO**

**(54) LIGHT SOURCE FOR LIQUID CRYSTAL
DISPLAY DEVICE**

(57) Abstract:

PROBLEM TO BE SOLVED: To provide a light source for a liquid crystal display device having little heat generation and keeping the intensity distribution of the light source uniform by positioning/fixing plural LEDs on the basis of the same plane and fixing them side by side so as to become symmetric for translation in the same plane.

SOLUTION: A LED light source is stuck to/lined up so that the radiating surfaces of plural LEDs 140-145 are closely adhered to a transparent member 148. The transparent member 148 is a planar transparent body whose at least tight contact surface 148A on the side closely adhered to the radiating surfaces of plural LEDs 140-145 is formed planar and e.g. glass and transparent plastic are used as the material. Lead frame 147 of the LEDs 140-145 is bent down so as to be right angle to the tight contact surface 148A and connected to a substrate 146. The substrate 146 is connected to a light source control part. Parallel beams radiated from the respective LEDs 140-145 are transmitted through the transparent member 148, the mutual parallelism is kept, heat generation is little and light intensity distribution becomes uniform.

COPYRIGHT: (C)1997,JPO

